

CLAIMS

1. A virtual knowledge management system using a computer, comprising:

- a virtual knowledge base which stores a plurality of objects that are data entities for respective utilization by a plurality of users, and that belong to different object types, and control data that is provided corresponding to each of said object types, and that relates to the control of object operations performed by said users; and
- a manager which has a plurality of types of functions for respectively performing a plurality of types of object operations including the display and preparation of said objects belonging to each object type in accordance with requests from said users;
- wherein the respective functions of said manager control the respective operations for said objects belonging to the respective object types in accordance with the control data of the corresponding object types.

- The virtual knowledge management system according to claim 1, wherein said manager further has functions for preparing or altering said control data corresponding to the respective object types in accordance with requests from said users.

3. The virtual knowledge management system according to claim 1, wherein said control data corresponding to the respective object types includes:

class definition data which defines one or more
5 classes possessed by said objects belonging to the respective object types; and

class security setting data which defines the classes that can be accessed or that cannot be accessed by the respective users among said one or more classes;

10 said objects belonging to the respective object types have values of said one or more classes defined by said class definition data corresponding to the respective object types; and

the function used to display said objects inside
15 said manager is arranged so that the values of classes that can be accessed by the respective users are selected from the values of said one or more classes possessed by said objects belonging to the respective object types, and are displayed to the respective users, on the basis of said
20 class security setting data corresponding to the respective object types.

4. The virtual knowledge management system according to claim 1, wherein said control data corresponding to the respective object types includes:

folder definition data which defines one or more folders in which said objects belonging to the respective object types are stored; and

folder security setting data which defines the
5 folders that can be accessed or that cannot be accessed by the respective users among said one or more folders;

said manager further has a folder operating function for operating said one or more folders defined by said folder definition data corresponding to the respective
10 object types in accordance with requests from the respective users; and

said folder display function is arranged so that folders are displayed with a distinction being made between folders that can be accessed and folders that cannot be
15 accessed by the respective users on the basis of said folder security setting data corresponding to the respective object types, and so that only folders that can be accessed by the respective users among said one or more folders that are displayed are opened in accordance with requests from the
20 respective users.

5. The virtual knowledge management system according to claim 1, wherein said control data corresponding to the respective object types includes function security setting data which defines functions that can be accessed or that

cannot be accessed by the respective users among said plurality of types of functions inside said manager; and
the system is arranged so that only the functions that are defined by said function security setting data
5 corresponding to the respective object types as being accessible by the respective users, among said plurality of types of functions for the respective object types inside said manager, can be operated in accordance with requests from the respective users.

- 10 6. The virtual knowledge management system according to claim 1, wherein said objects belonging to one of said object types are document objects which can be associated with document files;

the respective document objects have type data
15 which indicates one type selected from a plurality of specified types differing in the numbers or types of associated document files, and also have association data which indicates the association with one or more document files in cases where the document objects are associated
20 with said one or more document files;

the function for displaying said document objects inside said manager displays the types of the respective document objects on the basis of said type data of the respective document objects, and displays the document
25 files associated with the respective document objects on

the basis of said association data of the respective document objects, and opens said associated document files in accordance with requests from said users.

7. The virtual knowledge management system according
5 to claim 1, wherein said objects belonging to one of said object types are email messages;

the respective email messages have type data which indicates one type selected from a plurality of specified types differing in whether or not replay deadline is set,
10 and when said replay deadline is set, also have deadline data indicating the replay deadline and status data which indicates whether not the reply deadline has expired;

the function for displaying said email messages inside said manager displays the type data of the respective
15 email messages and, when said email messages have the replay deadline data and status data, also displays the replay deadline and status of the respective email messages.

8. The virtual knowledge management system according to claim 1, wherein said objects belonging to one of said
20 object types are email messages;

the respective email messages have reply/forwarding control data which relates to the reply to, or forwarding of, the respective email messages;

said manager has a reply/forwarding function for
25 replying to or forwarding said email messages in accordance

with requests from said users, and said reply/forwarding function is arranged so that this function controls the reply to or forwarding of the respective email messages on the basis of said reply/forwarding control data possessed by
5 the respective email messages.

9. The virtual knowledge management system according to claim 1, wherein said objects belonging to one of said object types are business processes which respectively have one or more sets of workflow model data that respectively
10 define the flow of work among a plurality of users;

said objects belonging to another one of said object types are tasks which have task data that defines the work that can be performed by said users

said objects belonging to another one of said
15 object types are projects, these respective projects are associated with one or more of said business processes, and with one or more of said tasks respectively assigned to one or more of said users as defined by the workflow data of the respective business processes;

20 said manager further has a project control function for controlling the progress of the respective projects in accordance with requests from said users; and

said project control function is arranged so that this function prepares and displays a task list that lists
25 the tasks assigned to the respective users on the basis of

said one or more business processes and said one or more tasks associated with the respective projects, and so that this function updates said task list for the respective users in accordance with input indicating the initiation or
5 completion of tasks from the respective users.

10. A virtual knowledge management system comprising:
intensive data administration means for the intensive administration of various types of documents or data that exist in an enterprise;
10 a control data editing part which prepares and alters information flow control data involved in the control of the information flow among a plurality of users, and which registers said prepared or altered information flow control data in a memory device; and
15 an information flow control part which uses said information flow control data registered in said memory device to control the flow of said various types of documents or data among a plurality of user terminals used by said plurality of users.
- 20 11. The virtual knowledge management system according to claim 10, wherein said control data editing part has a utilization authorization editing part which prepares and alters utilization authorization data that indicates the authorization of respective users to utilize said various
25 types of documents or data as one type of said information

flow control data, and registers the prepared or altered utilization authorization data for each user in said memory device, in accordance with requests from specified users; and

5 said information flow control part has data utilization control part which controls the utilization or operation of the respective users with respect to various types of documents or data in said data base on the basis of the utilization authorization data for the respective users
10 registered in said memory device.

12. The virtual knowledge management system according to claim 10, wherein said control data editing part has a mail communications control data editing part which prepares and alters mail communications control data that indicates
15 desired limitations regarding the forwarding of, or reply to, email messages transmitted from the respective users as one type of said information flow control data, and associates the prepared or altered mail communications control data with email messages transmitted from the respective users,
20 in response to requests from respective users; and

 said information flow control part has a mail communications control part which controls the forwarding or reply operations of receivers of the respective email messages on the basis of the mail communications control

data associated with the email messages transmitted from said respective users.

13. The virtual knowledge management system according to claim 10, wherein said control data editing part has a workflow model editing part which prepares and alters workflow models relating to desired business processes as one type of said information flow control data, and registers the prepared or altered workflow models in said memory device, in response to requests from specified users;
10 and

said information flow control part has a process control part which controls the information flow among a plurality of users involved in the respective business processes on the basis of the workflow models of the respective business processes.

14. The virtual knowledge management system according to claim 13, wherein data relating to the order of work or document flow among a plurality of users involved in respective business processes is included in said workflow models relating to respective business processes; and

said process control part controls the order of work or flow of documents among a plurality of users involved in the respective business processes on the basis of said data relating to the order of work or document flow

that is contained in the workflow models of the respective business processes.

15 15. The virtual knowledge management system according to claim 13, further comprising a display part which graphically displays a hierarchical structure that indicates the mutual logical relationship between the business processes and one or more users involved in each of the business processes on the basis of the data of said workflow models of one or more business processes registered in the
10 memory device.

15 16. The virtual knowledge management system according to claim 10 or 13, wherein said control data editing part has a project editing part which prepares and alters project data relating to projects that include one or more business
15 processes or one or more tasks as one type said information flow control data, and registers the prepared or altered project data in said memory device, in response to requests from specified users; and

20 said information control flow part has a project control part which controls the flow of information among a plurality of users involved in the respective projects on the basis of the project data for the respective projects.

25 17. The virtual knowledge management system according to claim 16, further comprising a display part which graphically displays a hierarchical structure that indicates

the mutual logical relationships of the projects, one or more business processes or tasks included in each of the projects and one or more users involved in each of these business processes or tasks on the basis of project data for
5 said one or more projects registered in said memory device.

18. A virtual knowledge management method comprising:
intensively administering various types of documents or data present in an enterprise;
preparing or altering information flow control
10 data relating to control of the information flow among a plurality of users;
registering said created or altered information flow control data in a memory device; and
controlling the flow of said various types of
15 documents or data among user terminals used by said plurality of users by means of said information flow control data registered in said memory device.

19. A computer program for causing a computer to execute a virtual knowledge management method comprising:
20 intensively administering various types of documents or data present in an enterprise;
preparing or altering information flow control data relating to control of the information flow among a plurality of users;

registering said created or altered information
flow control data in a memory device; and

- controlling the flow of said various types of
documents or data among user terminals used by said
- 5 plurality of users by means of said information flow control
data registered in said memory device.